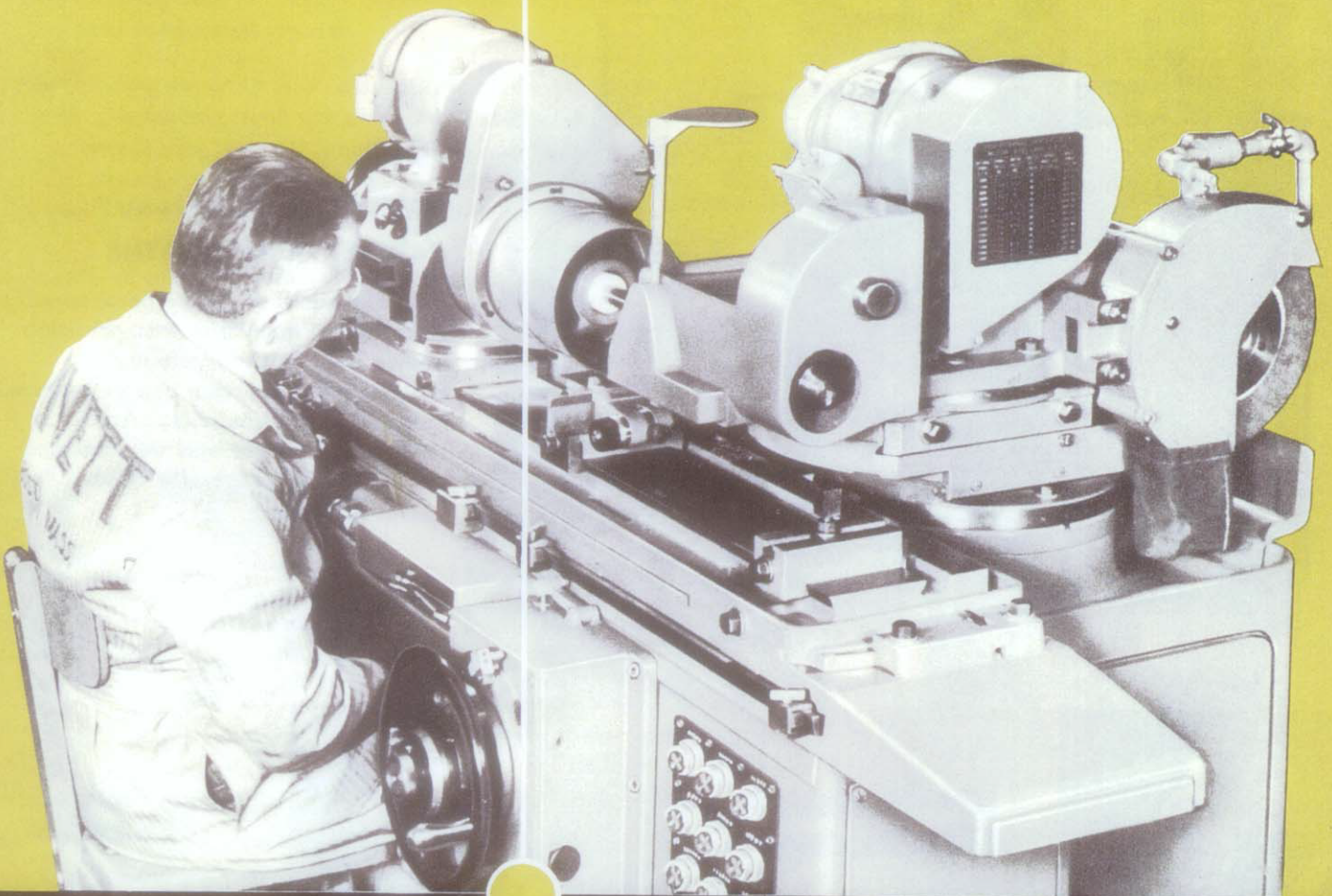


RIVETT

plain cabinet lathes, hand turret
lathes, toolroom lathes, internal
and universal grinders



a symbol of accuracy in machine tools

RIVETT LATHE & GRINDER, Inc., Brighton 35, Boston, Massachusetts

The name Rivett is recognized all over the world as symbolic of extreme accuracy. Its toolroom lathes, plain cabinet lathes, hand turret lathes and grinders are used where precision is required.

Rivett pioneered in the development of precision lathes and small hole grinders, making its first machines about 1884. That is quite a history to safeguard.

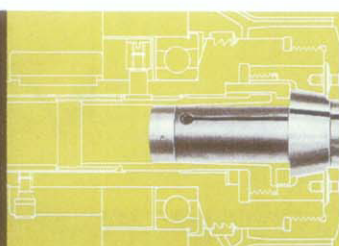
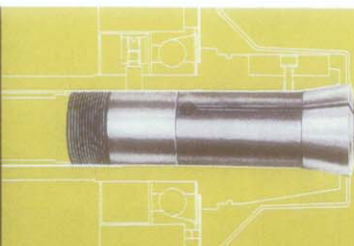
Precision to the machine tool man means a built-in quality, which should endure for many years to produce very accurate pieces for endless exacting uses. This quality must be protected by sturdy design, since speed and surprising strength are demanded by industry. Rivett likes to think it complies. And as it builds machine tools for you to run with least effort for years to come, it tries to keep in mind the end use, its objective and yours, "More Precision Work."



RIVETT 918 "Steelway" CABINET TURRET LATHE

Produces small duplicate parts speedily in unlimited quantities with precision known only to the toolroom. Single part production can be powered and cycled automatically. Automatic chuck closer and well-grouped controls step up operator time.

*For Complete Information
See Bulletin 918-ST*



DRAW-IN COLLET—mounts directly in spindle mouth and offers most efficient and accurate method for chucking individual parts. The long jaws and proper taper reduce force required to grip work. The wide spacing of front and rear bearings reduces runout error on undersize and oversize stock. Capacity up to 1½" round.

STATIONARY COLLET—has no "in" or "out" motion when closing on work. Lengths can be held; varying diameters have no effect on chucking. This collet has been developed for bar stock or chucked parts on which lengths must be accurately maintained. Capacity up to 1½" round.

"STEELWAY" LATHES

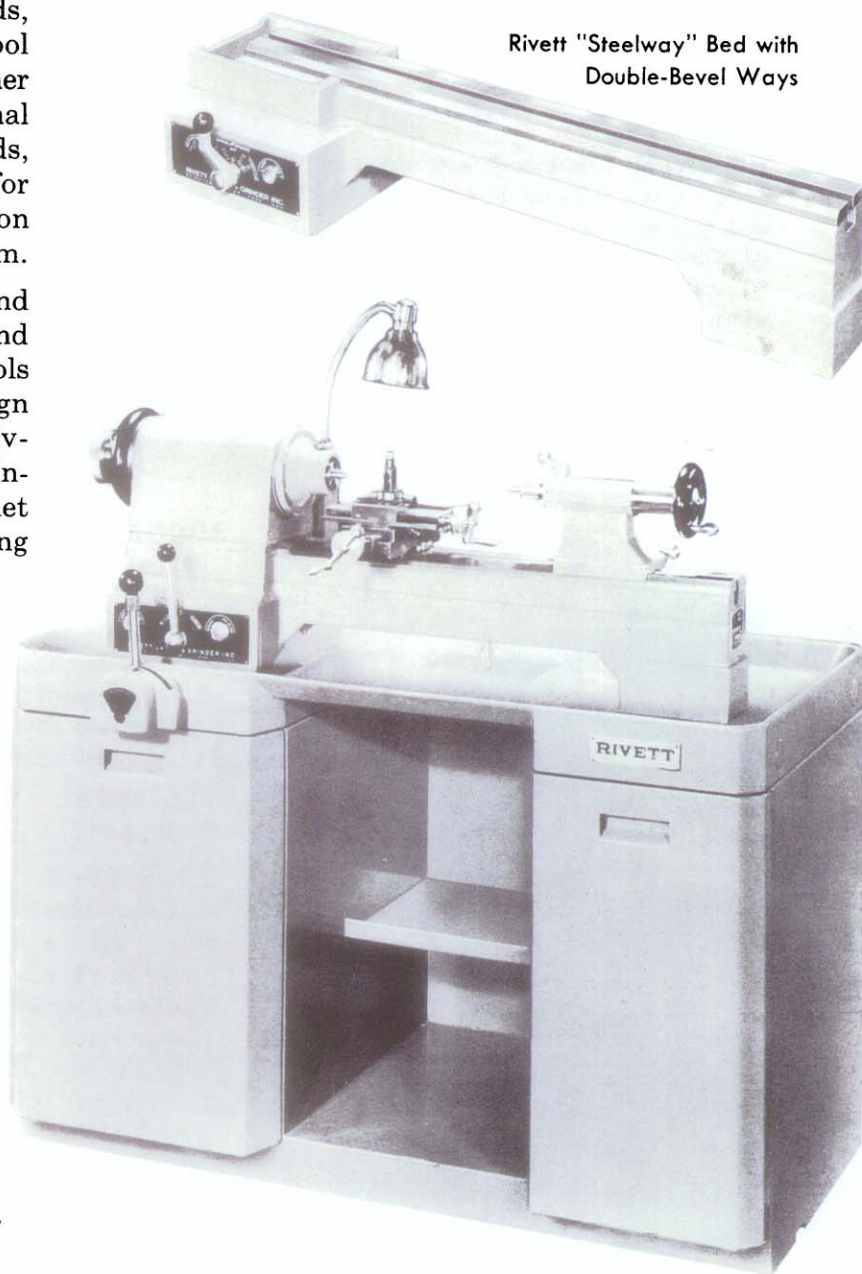
Rivett 918 "Steelway" precision cabinet lathes represent the most modern design in size, speed and power. High spindle speeds, efficient work-holding methods and tool rigidity have been combined to attain finer finish and greater productivity. Optional drives, with variable or set spindle speeds, are available to fit the application—for normal toolroom use or rapid production cycling. Speeds range from 90 to 3750 r.p.m.

Features include hardened, precision ground steel ways with double-bevel alignment and maximum bearing area; grouped controls reducing operator fatigue; patented design permitting replacement of endless vee driving belt without disturbing headstock spindle; optional stationary or draw-in collet with greater capacity and accuracy; long taper key-drive spindle nose.

RIVETT 918 "Steelway" CABINET LATHE

In the toolroom this Rivett Lathe produces a precision part in far less time than that required to set up a larger, more cumbersome machine. Typical of the design features is the compound slide rest with shoe mounting for perfect self-alignment and quick transverse positioning. Its versatility is derived from its many efficient attachments for milling, grinding, slotting and thread chasing.

For Complete Information See Bulletin 918-SL



Rivett "Steelway" Bed with
Double-Bevel Ways

specifications

General		Cabinet Turret Lathe		Cabinet Lathe	
Swing over bed, dia.	9	Distance between collet and face of turret after indexing, max.	20" or 26"	Distance between centers, max.	18" or 24"
Collet capacity		Turret slide travel, after indexing	4 1/16"	Swing over top slide of slide rest, dia.	2"
Draw-in collet, max. dia.	1 1/8"	Turret tool holes, six	3/4" dia. x 1 1/2"	Swing over bottom slide of slide rest, dia.	5 1/4"
Stationary collet, max. dia.	5/16"	Double tool slide cross travel	3 3/8"	Slide rest, travel of lower and upper slides	5 1/4"
Step chuck capacity, max. dia.	6	Swing over double tool slide, dia.	4 1/8"	Tailstock spindle travel	3 1/2"
Jaw chuck, max. dia.	6"	Universal turning slide travel	2"	Taper for centers	Morse No. 2
Hole through spindle, dia.	1 1/4"				
Spindle speeds—variable speed drive:					
Infinite, with two speed motor	90 to 3750 r.p.m.				
Weight, net	1100 lbs.				

Guarantee

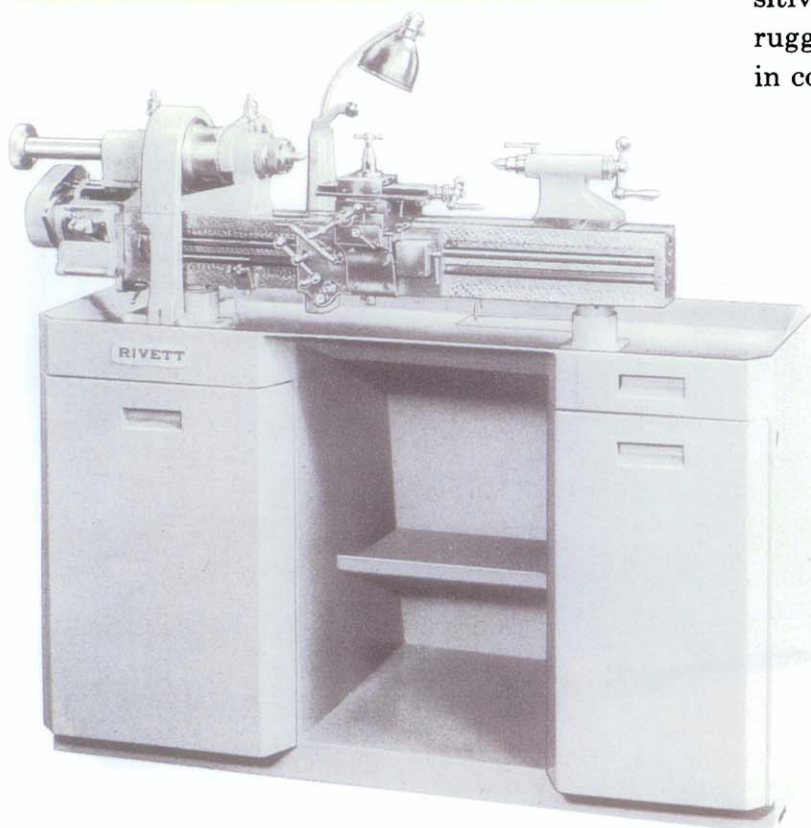
THE RIVETT 608 will turn or bore within 0.0001" in six inches work held in collet, and turn between centers within 0.0001" in six inches. The Rivett 608 will face to eight inches diameter within 0.0002" concave, 0.0000" convex. The Rivett 608 will cut threads within 0.0005" in twelve inches, or within 0.0003" in any three inches, or within 0.0002" in any inch.

THE RIVETT 1020S will turn between centers within 0.0004" in twelve inches, and turn with work held in chuck within 0.0008" in twelve inches. The Rivett 1020S will face to twelve inches diameter within 0.0005" concave or 0.0000" convex. The Rivett 1020S will cut threads within 0.0004" in four inches.

TOOLROOM LATHES

Rivett Toolroom Lathes are made with such fine accuracy that it is possible to guarantee their performance to the exacting limits shown at left. Used in instrument, experimental, and tool shops the world over, these Rivett Toolroom Lathes are accepted as among the master craftsman's master tools.

The Rivett 608 has finely made attachments for many forms of machining to assist the instrument and model maker. The Rivett 1020S has the sensitivity and speed for the smallest part and the ruggedness and power for a 1/4" cut at .020" feed in cold rolled steel.



RIVETT 608

SCREW CUTTING LATHE

The 608 is a small but powerful back-geared, screw-cutting lathe having slide areas equal to those of other lathes twice its size. Its bronze-bearing spindle is capable of extreme turning accuracy and finish. Performance within the guaranteed limits is attained and safeguarded by three point bed mounting; double-bevel alignment for head and tailstock; carriage bearing of 76 square inches on bedways; separate lead screw for thread cutting; double-taper, self-aligning spindle bearings, and heat-treated, precision ground feed screws.

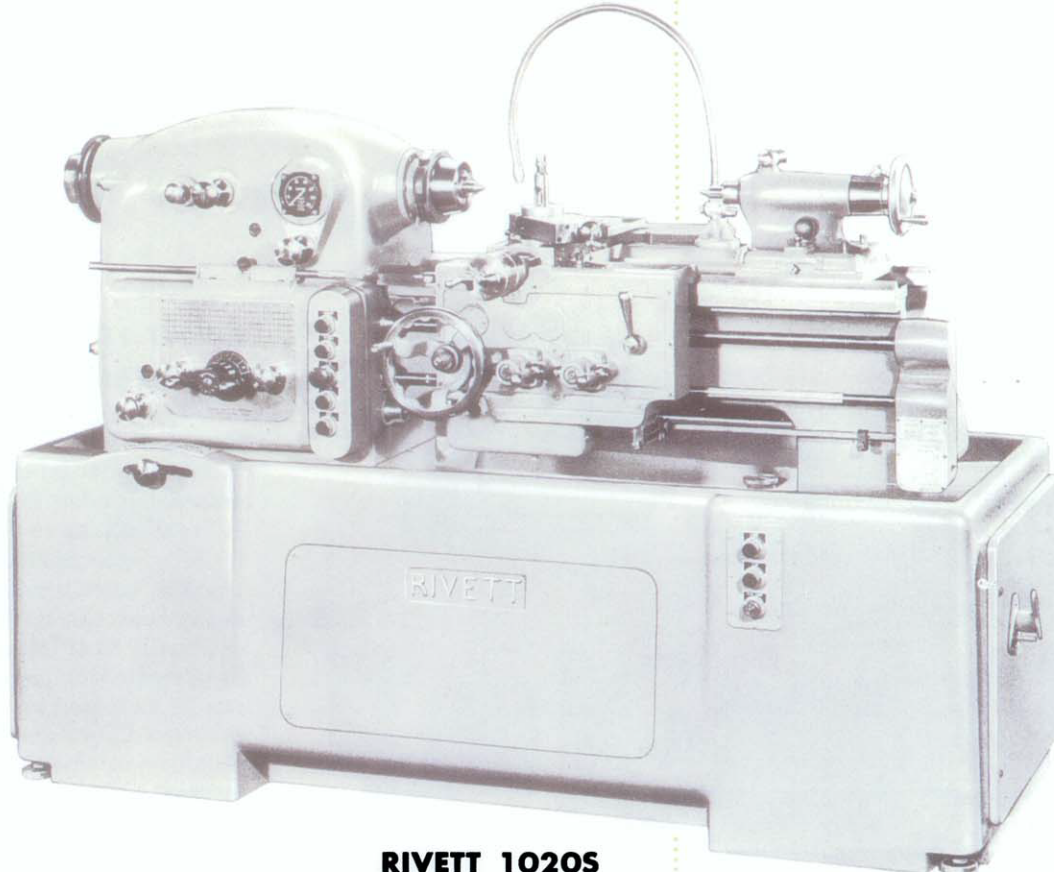
For Complete Information See Bulletin 608

specifications

Distance between centers, max. 18 1/4"
Swing over bed, dia. 8 1/2"
Swing over bottom slide
of compound, dia. 4 1/4"
Draw-in collet, max. dia. 1"
Step chuck, max. dia. 6"

Jaw chuck, max. dia. 6"
Hole through spindle, dia. 1 1/8"
Slide rest, travel of top slide 5 1/4"
Slide rest, travel of cross slide. 5 1/4"
Feed range, through
gear box0015" to .0220"

Thread range, through gear box . . . 10 to 144
Tailstock spindle travel. 3 1/4"
Spindle speeds, variable speed drive:
Infinite, back geared. 15 to 225 r.p.m.
Infinite, open belt. 95 to 1500 r.p.m.
Floor space. 26" x 53"
Weight, net. 1100 lbs.



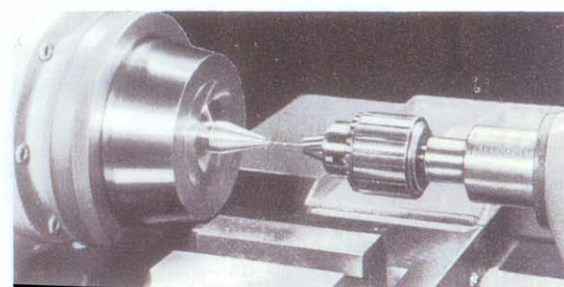
RIVETT 1020S TOOLROOM LATHE

This powerful geared-head lathe qualifies for any turning within its 12½" swing and 20" centers. The 1020S combines the feather-touch sensitivity of an instrument lathe with that heavy-biting ruggedness which carbide cutting tools require. It weighs 3900 lbs., mounts a 5 h.p. drive and its ways are hardened steel.

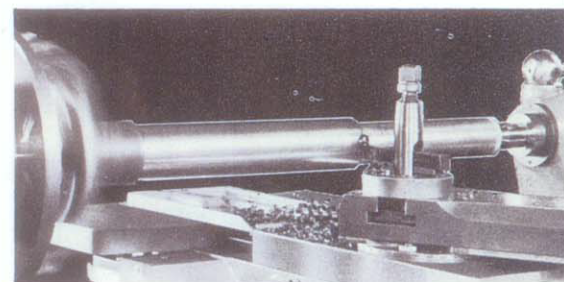
FEATURES

- ★ Back gearing for power cuts—belt drive free of all gearing for high speeds. ★ 12¾" wide hardened steel ways of bed absorb heavy cutting force. ★ High spindle speeds through trouble-free mechanical drive. ★ Push button controls for complete operation. ★ Neutral clutch stops spindle without stopping drive. ★ Three bearing mounts for spindle.
- ★ Collets mount directly in spindle mouth. ★ Hand wheel for turning headstock spindle. ★ Antifriction bearings used throughout. ★ Gear box gives 72 feeds and 84 threads from 2 to 240 per inch. ★ Automatic lubrication. ★ Hardened and ground feed screws.

For Complete Information See Bulletin 1020



SENSITIVE AS AN INSTRUMENT LATHE



POWERFUL AS A LARGE ENGINE LATHE

specifications

Distance between centers, max. 20"
Swing over bed, dia. 12½"
Swing over carriage, dia. 7¼"
Draw-in collet, max. dia. 1½"
Step chuck, max. dia. 6"
Jaw chuck, max. dia. 8"
Hole through spindle, dia. 1¼"
Cross slide travel. 7¼"

Number of feed changes. 72
Feed range through gear box.001" to .060"
Number of thread changes. 84
Thread range through gear box. 2 to 240
Travel of tailstock spindle. 3½"
Dia. of tailstock spindle. 1⅝"
Taper of hole. Morse No. 3
Size of motor. 1750 r.p.m., 3 h.p. or 5 h.p.

Spindle Speeds, Variable Speed Drive:
Range No. 1—
Infinite back geared. 22 to 400 r.p.m.
Infinite by direct belt. 280 to 2500 r.p.m.
Range No. 2—
Infinite back geared. 22 to 400 r.p.m.
Infinite by direct belt. 400 to 3600 r.p.m.
Floor space. 29" x 73"
Weight, net. 3900 lbs.

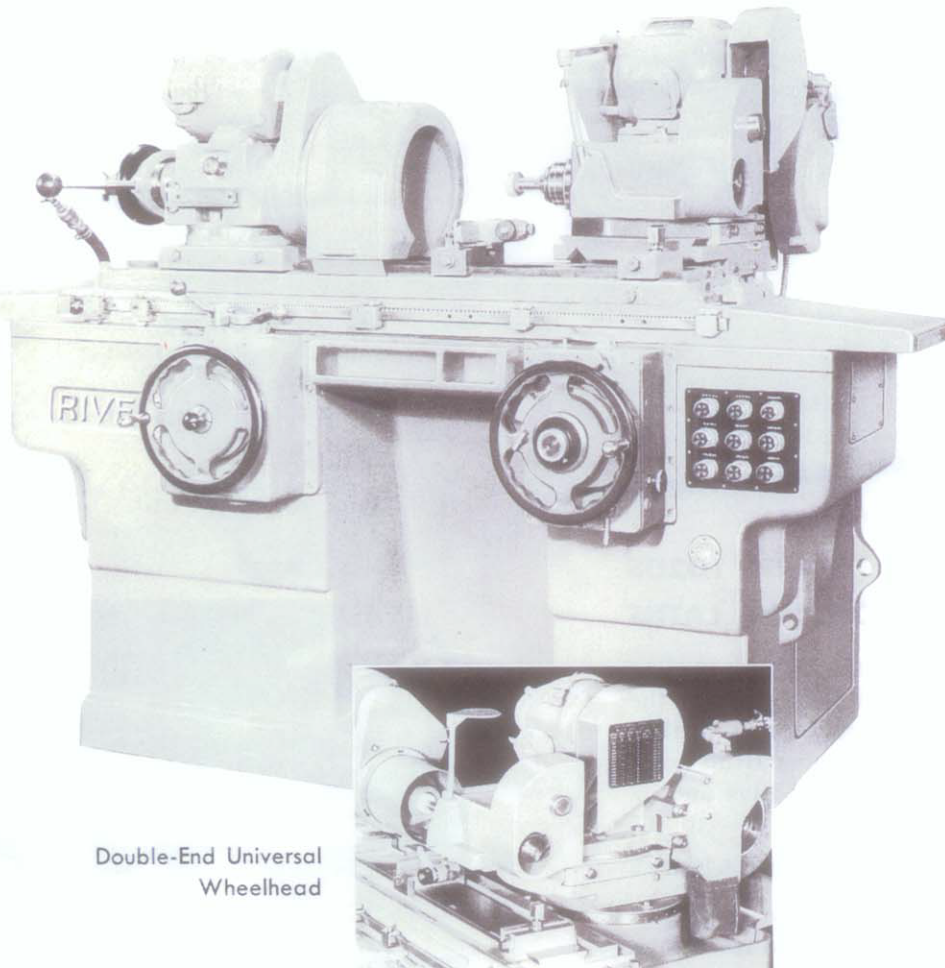
GRINDERS

RIVETT 1024 INTERNAL AND UNIVERSAL GRINDER

Combines the special features found in an internal grinder and a plain external grinder. It grinds holes from $\frac{1}{8}$ " to 9" dia. up to 6" depth allowing for full-depth gauging without retracting wheelhead slide. Greater depth holes can be ground. It grinds externally to 12" dia. and 21" length. Standard swing over table of 12" can be increased to 14" or 20" to accommodate a greater work range. Double-end wheelhead carries both internal and external spindles, and swivels 180° for quick conversion.

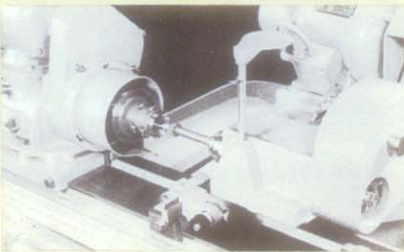
Internal spindles available for speeds from 6000 to 35,000 r.p.m. Preload of antifriction bearings on external spindle maintains correct tension without adjustment. Double swivels on cross slide for two angle grinding. Workhead spindle mounts draw-in collets and step chucks directly. Micrometer stop and fine table feed for shoulder and blind hole grinding. Sine bar for accurately setting swivel of workhead or table for taper grinding.

For Complete Information See Bulletin 1024



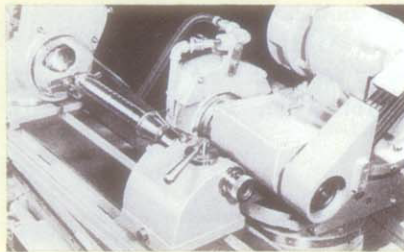
Double-End Universal
Wheelhead

INTERNAL GRINDING



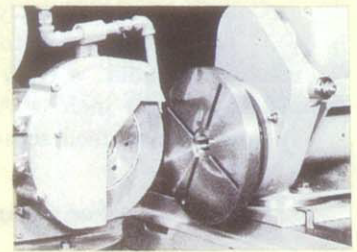
Grinding taper and bevel at one chucking. Taper is done under power table feed with work table swiveled. Bevel is ground by hand infeed with cross slide swiveled.

EXTERNAL GRINDING



Work table is swiveled for grinding a 15° taper.

FACE GRINDING



The workhead is swiveled 90° for face grinding a slotted plate with table feed. Thin work mounted on face plates, in collets or step chucks can be so ground.

specifications

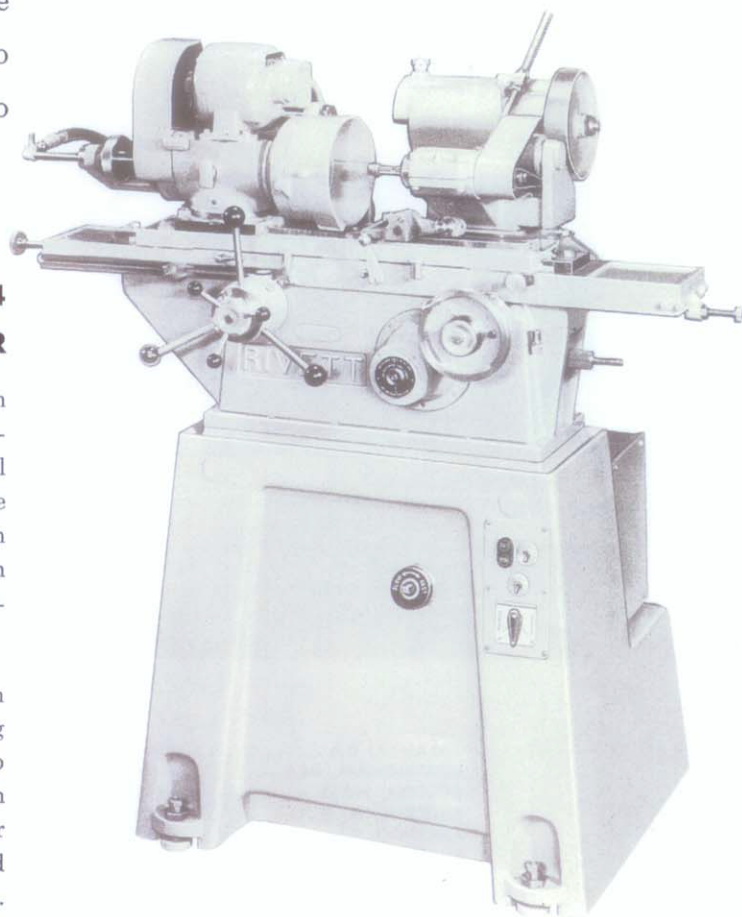
Range of internal grinding, dia. approx. $\frac{1}{8}$ " to 9"
Range of external grinding
up to 12" by 21" length
Swing over table, standard, dia. . . . 12"
Swing over table, special, dia. . . . 14" and 20"
Center distance using tailstock flush . . . 24"
Table travel, hydraulic . . . $\frac{3}{8}$ " to 24"
Table reciprocation speeds . . . infinite
Table reciprocation
infinitely adjustable . . . 3" to 400" per min.

Dwell adjustment at
each end of stroke . . . 0 to 5 sec.
Table hand feed:
Coarse, one revolution of handwheel . . . 1"
Fine, one revolution of handwheel . . . 0.1"
Cross feed graduations on dia.:
Coarse infeed . . . 0.001"
Fine infeed . . . 0.0001"
Cross slide lower swivel each side of center . . 90°
Workhead spindle speeds . . 100 to 600 r.p.m.

Workhead swivel each side of center . . . 90°
Collet capacity, dia. . . . 1 $\frac{1}{8}$ "
Step chuck capacity, dia. . . . 6"
Internal spindles,
speed range . . . 6,000 to 35,000 r.p.m.
External spindle
speeds . . . 1,800 and 2,100 r.p.m.
Maximum ex-
ternal wheel . . 12" dia. x 1 $\frac{1}{2}$ " face x 5" hole
Weight, net . . . 5,800 lbs.

Rivett Grinders are known in the toolroom as much for their flexibility as for their accuracy. Quick and easy to set up, they accomplish a variety of work on internal and external grinding—taper, bevel, double angle, shoulder and face. Rivett grinders are also well suited to production where quantities are too small to warrant a specialized machine.

RIVETT 84 INTERNAL-EXTERNAL GRINDER

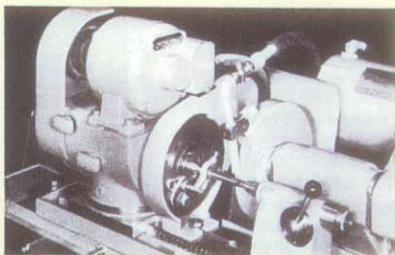


This Rivett machine is a small hole grinder which converts quickly and easily for external grinding. Interchangeable wheelheads for internal and external spindles mount on the cross slide. Quick to set up, the 84 is ideal for the diversified work of a toolroom and die shop, and finds practical use in production where quantity does not justify the more expensive specialized production grinder.

Hole grinding capacity is 3" dia. with a maximum depth of 4", depending upon the diameter. External grinding is to 3" dia. by a 4" length. Micrometer table stop exactly positions work for shoulder grinding with the fine hand table travel. Internal spindles available for speeds from 12,000 to 35,000 r.p.m. Workhead spindle mounts draw-in collets or step chucks directly.

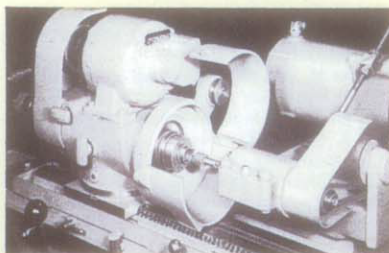
For Complete Information See Bulletin 84

EXTERNAL GRINDING



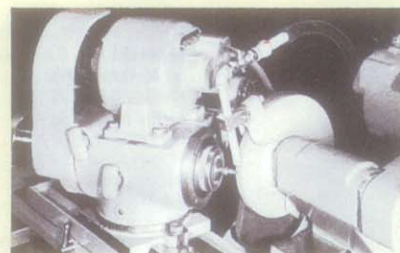
Grinding a No. 2 Morse taper with work held between centers and work table swiveled.

INTERNAL GRINDING



Grinding a straight hole with the work held in a step chuck.

EXTERNAL GRINDING



Grinding a sharp taper on a metering needle held in collet with the workhead swiveled 30°.

specifications

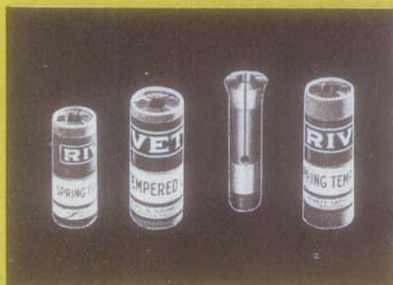
Range of internal grinding, dia. up to 3"
Range of external grinding, dia. up to 3" by 4" length
Swing over table, dia. 8"
Center distance using tailstock flush. 8 1/2"
Table reciprocation infinitely adjustable
20 passes to 80 passes per min.
Table power reciprocation travel. 1/2" to 4"
Table hand travel. 11"

Table hand feed:
Coarse, one revolution of handwheel . . . 8 3/8"
Fine, one revolution of handwheel . . . 1.50"
Cross feed graduations on dia.
Coarse infeed.001"
Fine infeed.0001"
Workhead spindle speeds 200, 400 and 600 r.p.m.
Workhead swivel each side of center. 90°

Collet capacity, dia. 7/8"
Step chuck capacity, dia. 6"
Internal spindles, speed range 12,000 to 35,000 r.p.m.
External spindle speed 3450 r.p.m.
Maximum external wheel . . . 7" dia. x 1/2" face x 1 1/4" hole
Weight, net. 2200 lbs.

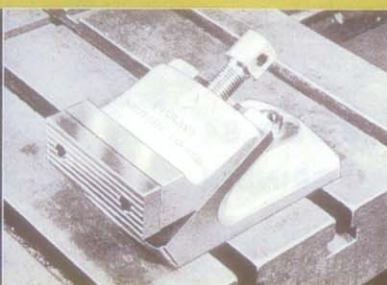


ACCESSORIES



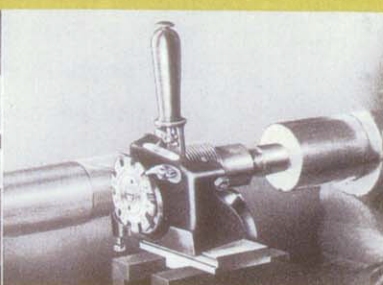
DRAW-IN COLLETS — are made in many standard and special styles for lathes, millers, grinders. Carried in stock. Checked 25 times against master gauges. Transparent packaging permits inspection.

Write for Bulletin 100



LOCKJAW—all purpose work clamps furnished in several sizes for planers, shapers, millers, surface grinders. Eliminates expensive clamping and bolting. Saves time and work spoilage.

Write for Bulletin 140



THREAD TOOL—used on any screw-cutting lathe, and takes the place of single point threading tools. Ten teeth of a cutter are progressively indexed to form a perfect finished thread.

Write for Bulletin 110

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